

# BP41

**PIPE LAYER**

## Salient Features :

- BEML B6D125 Diesel Engine
- Hydraulically Actuated
- Sturdy Construction of booms & track frame
- Heavy duty constant mesh transmission
- Hydraulically actuated counter weights
- Automatic Kickout device for boom
- Pilot operated work attachment



Flywheel Power (net) : 134 kW (180 hp) @ 1850 rpm

Max. Lifting Capacity : As per lifting performance curve.

# BP41

## PIPE LAYER

### Salient Features :

**BEML B6D125 Diesel Engine :** For sustained power and fuel economy

Hydraulically actuated, oil cooled main clutch

**Sturdy Construction :** The boom is welded box section and operated by wire cables. Track-roller frames are made of high-tensile steel for maximum rigidity.

**Transmission :** Heavy duty, constant mesh transmission with helical gears.

**Steering Clutches :** Hydraulically actuated, self-adjusting oil cooled steering clutches for long life. Steering brakes are also oil cooled.

Commonality of parts with BEML BD80 makes it easy for servicing and replacement of parts besides proven reliability. Faster operation due to two raising and lowering speeds. Automatic kick-out device for boom

Hydraulically actuated counterweights for increased stability

**Lifting Performance :** Maximum lifting capacity as per lifting performance curve to cater to wide range of pipe laying work with joystick control.



### ENGINE

Make	BEML
Model	B6D125
Type	Water cooled, 4 cycle overhead valve, direct injection diesel engine
Net power (fhp)	134 kW (180hp) @ 1850 rpm ISO:9249
Maximum torque	80.0 kg-m @ 1100 rpm
No. of cylinders	6, inline
Bore x Stroke	∅ 125 x 150 mm
Displacement	0.011 m <sup>3</sup>
<b>Electricals</b>	
Alternator	24 V, 55A
Starting motor	24 V, 7.5 kW
Battery	2 x 12 V, 200 Ah



### TRANSMISSION

<b>Transmission System Direct Drive</b>		
Main clutch type	Wet multiple disc over centre engagement, hand operated with inertia brake & hydraulic booster	
<b>Transmission</b>		
Type	Helical gear, constant mesh, hand operated	
Bevel gear	Spiral type, single reduction	
<b>Final Drive</b>		
Type	Spur gear, double reduction	
Total reduction	17.187	
Gear Shift	5 forward, 4 reverse	
<b>Travel speeds m/sec (km/h)</b>		
<b>Range</b>	<b>Forward</b>	<b>Reverse</b>
1st	0-0.67 (0-2.4)	0-0.86 (0-3.1)
2nd	0-0.94 (0-3.4)	0-1.25 (0-4.5)
3rd	0-1.44 (0-5.2)	0-1.86 (0-6.7)
4th	0-2.05 (0-7.4)	0-2.67 (0-9.6)
5th	0-2.78 (0-10.0)	



### BRAKES

Type	Wet contracting band. Foot operated supported by efficient linkages for light-touch actuation
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### STEERING SYSTEM

Type	Wet, multiple-disc foot operated with hydraulic together with spring type booster
Control	Wet contracting type, foot operated with back-up booster



### FILTER SYSTEM

Engine	Replaceable cartridge type filter for lubrication as well as for fuel line.
Transmission	One magnetic oil strainer and one replaceable, element bypass filter is provided
Steering & Braking	Magnetic oil strainer is common to transmission, steering & braking system. Separate replaceable element type filter is provided for steering & braking
Hydraulic System	Magnetic plug & replaceable element type filter is provided.



### MASS

Shipping Mass (Basic tractor with lubricating hydraulic, cooling systems and 10% of fuel capacity)	29,870 kg
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### STANDARD EQUIPMENT

- Hook & Boom winch
- 5.5m boom with cables
- Counter weight mechanism
- Hydraulic track adjusters
- Adequate lighting system
- Under guards

### OPTIONAL ATTACHMENTS

- Insulated Canopy
- Safe Load Indicator System
- Long Boom (6.2m)
- Emergency Free Fall Winch

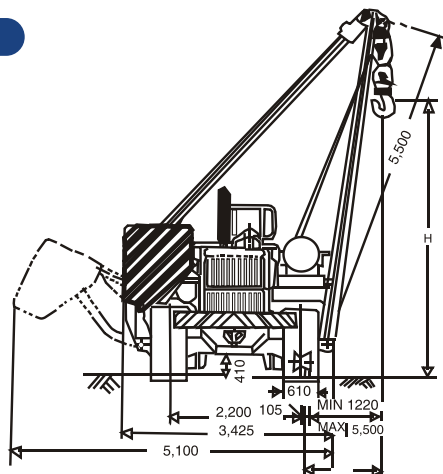
## HYDRAULIC SYSTEM

Hydraulic Pump (winch)	
Type	Gear pump
Capacity	335.5 l/min
Relief pressure	13.73 MPa (140kg/cm <sup>2</sup> )
<b>Hydraulic pump (Counter weight)</b>	
Type	Tandem pump
Capacity	85 l/min
Relief pressure	13.73 MPa (140kg/cm <sup>2</sup> )
<b>Hydraulic Cylinder</b>	
Type	Double acting piston
Counter weight	2 cylinders
Bore x Stroke	∅ 90 x 525 mm

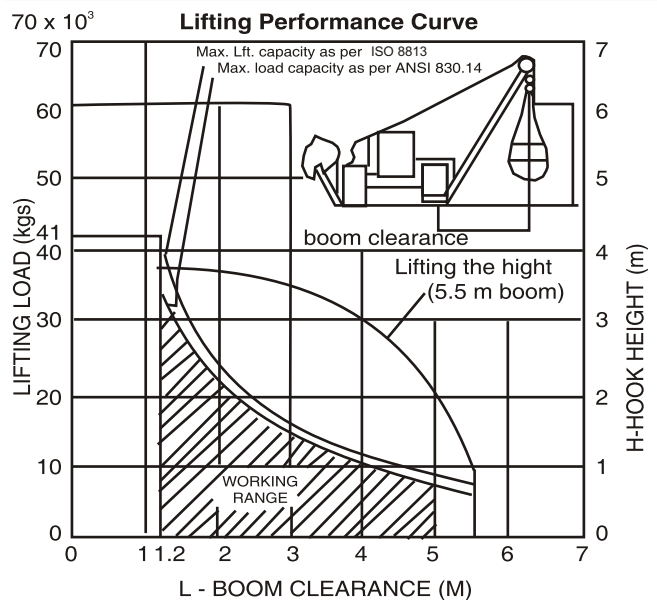
## DIMENSIONS & OPERATING DATA

Overall length	4890 mm
Overall width	3425 mm
Overall height	2935 mm
Operating Data	
<b>Pipe Laying Equipment</b>	
<b>Crane</b> See chart	
Boom overhang (STD)	1.22 m to 5.5 m
Optional	1.22 m to 6.2 m
Hook speed (1st layer)	
Raise - 1st	6.5 m/min
- 2nd	13.0 m/min
Lower - 1st	6.5 m/min
- 2nd	13.0 m/min
<b>Boom</b>	
Type	Welded box section and operated by wire cables
Length	5500 mm (Optional 6200 mm)
Weight	550 kg (585 kg)
<b>Winch</b>	
Type	Hydraulically operated, two speed, reversible
Driving System Powered continuously by hydraulic pump	
Drum brake	Automatic braking system
Transmission	Built in planetary system
<b>Winch Drum</b>	
Hook (dia x width)	∅ 323.85 x 431.8 mm
Boom (dia x width)	∅ 323.85 x 431.8 mm
<b>Wire rope</b>	
Hook (dia x length)	∅ 18 mm x 85 m
Boom (dia x length)	∅ 18 mm x 60 m
<b>Counter Weight</b>	
Type	Segmented plate type, Hydraulically actuated
Weight (Incl. bracket)	4680 kg ± 6%
No. of plates	8
Safety Equipment boom	Automatic max. kick-out device

## DIMENSIONS



## CHART



### Lifting Performance (as per ISO 8813)

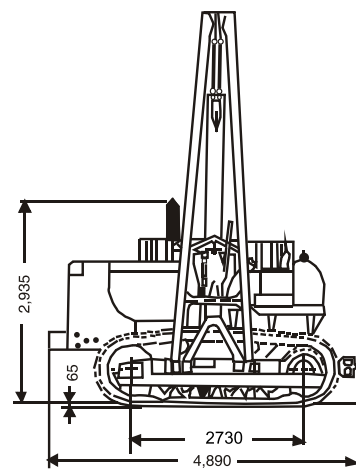
Based on the firm level ground operation and standard counter weight fully extended 5.5 m boom, 18 mm dia wire rope 21400 kg minimum breaking strength 6-part load line, 4-part boom line.

## UNDER CARRIAGE

Suspension	Non-Oscillation type equalizer bar
Track Frame	Box section, high tensile strength steel construction
Track Rollers	6 nos. each side
Carrier Rollers	2 nos. each side
Track Shoes	38 nos. each side
Track Pitch	2200 mm
Grouser-Height	65 mm
Shoe width	610 mm (std)
Ground Pressure	85.3 kPa (0.87 kg/cm <sup>2</sup> )
Ground contact area	3.330 m <sup>2</sup>

## COOLANT & LUBRICANTS CAPACITY (Refill)

System	Litres
Cooling System	65
Crank case	34
Fuel Tank	350
Main Clutch	25
Transmission, bevel gear torque converter & steering	75
Final drive (each side)	36
Hydraulic Tank	110



Material and specifications are subject to change without notice, Illustrations may include optional equipment & accessories

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